

Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

Paris, Cody Morris (2012) Surveying “difficult-to-sample” backpackers through Facebook? Employing a mixed-mode dual-frame procedure. *Anatolia*, 24 (1) . pp. 75-85. ISSN 1303-2917 [Article] (doi:10.1080/13032917.2012.762319)

Final accepted version (with author's formatting)

This version is available at: <https://eprints.mdx.ac.uk/17588/>

Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author's name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

Surveying ‘Hard to Sample’ Backpackers through Facebook?

Employing a Mixed-Mode Dual Frame Procedure

Cody Morris Paris

Middlesex University Dubai, United Arab Emirates

Knowledge Village, Block 16, PO BOX 500697

c.paris@mdx.ac

Cody Morris Paris is Senior Lecturer and Programme Coordinator for Social Science programmes at Middlesex University Dubai where he teaches a variety of classes in the areas Tourism, Social Science, International Development, and International Politics. He completed his PhD in Community Resource Development at Arizona State University. Cody is also a Senior Research Fellow at the School of Tourism and Hospitality, University of Johannesburg in South Africa. He is the co-chair of the ATLAS Independent Travel Research Group, and is an Executive Board member of Amizade, a non-profit focused on developing global fair-trade service learning programs. His primary research interests include: Geopolitics and Tourism, Technology and Tourism, Sustainable Development, Mobilities, and Experiential Learning and Tourism.

Surveying ‘Hard to Sample’ Backpackers Through Facebook: Employing a Mixed-Mode Dual Frame Procedure

The emergence of social media has created a new medium for administering surveys for tourism research. While social media has great potential for tourism researchers, several aspects need to be considered. In the case of backpackers, a traditionally ‘difficult to sample’ group, destination based surveys, email surveys, survey links posted in online forums, and social media sites like Facebook, have all been used to administer surveys. The purpose of this paper is to present the case for a mixed-mode dual frame sampling procedure as an optimum for targeting backpackers. The sampling procedure discussed in this paper included self administered surveys through backpacker specific groups on Facebook.com, and self-administered surveys at backpacker hostels in Cairns, Australia. This paper argues that for this particular group, the combining off-line and on-line sampling modes allows the research to minimize errors while maximizing the diversity. Additionally, this paper provides some insights and recommendations into administering surveys through Facebook for tourism researchers.

Keywords: virtual methods, backpacking, online sampling, social media, Facebook, survey methods



The emergence of social media has created a new medium for administering surveys for tourism research. Social media offers researchers the ability to reach a large sample quickly and cheaply, and thus has become increasingly popular among both established tourism academics and post-graduate student researchers. The growing

popularity of social media as a medium for administering surveys necessitates a deeper examination of some of the advantages and disadvantages, considerations, and strategies for collecting surveys through this medium.

The purpose of this paper is to examine the methodological considerations of targeting one group of tourists, backpackers, through Facebook. In doing so, this paper proposes employing a mixed-mode dual frame sampling procedure that combines surveys administered through Facebook with destination-based surveys. Targeting backpackers for survey research entails some unique issues and considerations (Paris, 2008). Backpackers are geographically mobile, travelling between developed backpacking centres or enclaves and more remote, off-the-beaten-path destinations. Backpacking is a global phenomenon contributing to the difficulty of obtaining a representative sample. In the past, survey research has targeted backpackers in backpacker enclaves. Sampling backpackers in enclaves, particularly hostels, has provided a means of cross-sectional data collection, but with some limitations. The sample of backpackers from one backpacking enclave in one location might differ from that in another part of the globe resulting in coverage and sampling error (Dillman, 2007). However, sampling backpackers at multiple destinations can be constrained by resources including time and money.

Some studies have applied online surveys as a remedy to this coverage issue. The Backpacker Research Group (BRG) conducted a study that employed a survey administered online, via e-mail, in partnership with the International Student Travel Confederation (ISTC) (Richards & Wilson, 2004). Their study did provide a large global sample with individuals from numerous nationalities and overcame coverage and sampling errors stemming from geographical constraints of administering surveys in

backpacker enclaves. Their study did have some limitations of its own as it was sent to student travellers, which excludes older and non-student backpackers.

In the case of backpackers, destination based surveys, email surveys, survey links posted in online forums, and social media sites like Facebook, have all been used to administer surveys. The next section provides a brief review some of the sampling methods employed in previous backpacking studies. Following this review, this paper then provides a critical discussion of the optimum sampling procedure for the case presented.

B

On September 14th, Facebook reached one billion users worldwide including 600 million mobile users. In total there are 140 billion friend connections, and since the inception of the 'like' function in February 2009 there has been 1.13 trillion 'likes'. There have been 265 billion photos uploaded and 17 billion location-tagged posts. While Facebook is used worldwide, about 30% of users come from the top five countries: Brazil, India, Indonesia, Mexico, and the United States. (Facebook.com) Facebook has become a central component to the daily lives of one seventh of the global population, and as a result it has been employed as the subject of and a tool for conducting academic research.

Facebook has been used as a means for administering surveys in other tourism studies. In many cases Facebook has been used to survey students as part of a study related to tourism. This is particularly true of the earliest studies, as Facebook started out as an exclusive social network of students. In one of the first examples of Facebook being used to administer surveys for tourism research, Mack, Blose, and Pan (2007)

administered a survey to students through Facebook in 2006 in their study focused on examining the credibility of blogs in tourism. Zehrer and Grubmuller (2012) surveyed students through Facebook in a study on social media marketing in tourism education. Paris, Lee, and Seery (2010) conducted a survey through the Facebook pages of three Special Events in order to examine the use of Facebook 'events' as a tool for marketing special events. Paris (2008; 2010a; 2010b) administered two online surveys through backpacker specific Facebook Groups and Lonely Planet's Thorn Tree Forums in 2007 and 2008. The justification of using Facebook Groups was that self-identified backpackers were able to be targeted without concern for their geographical location. Additionally, Lonely Planet Forums allowed for older backpackers and backpackers from many nationalities, to be targeted, as older backpackers have been found often to be more active in their participation in the online travel forums (Paris, 2010a). The use of Lonely Planet also had the disadvantages of being an open community making the calculations of a response rate nearly impossible.

In addition to the recent use of social media and online forums to administer surveys to backpackers, several other sampling procedures have used web-based surveys to target backpackers. Speed (2008) administered a self-completion questionnaire through 'backpacker websites' found through an internet search. Each of these websites had a message board on which a link to the questionnaire was posted. As previously mentioned, Richards & Wilson conducted an online survey using an email listserv from ISTC.

Destination based surveys for backpacker research have most often been administered in backpacker enclaves and/or hostels (e.g. Murphy, 2000; Speed & Harrison, 2004; Newlands, 2004; Prideaux & Shiga, 2007; Ian & Musa, 2008; Niggel &

Benson, 2008; Cave, Thyne, & Ryan, 2008), as these are the easiest locations to target the highly mobile travellers. Outside of these centralized locations, it is difficult to find and/or differentiate backpackers from other travellers. While some of these studies have focused examining backpackers within the geographical context in which they are surveyed, many studies are focused on other topics not necessarily related to the geographical location of the backpackers or where the survey was conducted. This suggests that for some of these studies there is potential coverage error. For example Ooi and Laing (2010) examined the overlap between backpacker and volunteer tourism through a survey administered at backpacker hostels in Melbourne, Australia. The choice of Melbourne as the site for the survey is likely to be out of convenience to the authors due to the close proximity of their university.

Several studies have focused specifically on the study of backpacker enclaves. In this case, examining one or more enclaves through surveys administered to backpackers in those enclaves would be an advantage. An example would be Wilson and Richards (2008) study of the backpacker enclaves in Sydney and Bangkok. In a different case, the country and culture of origin was a central component of Reichel, Fuchs, and Uriely's (2009) study of Israeli backpackers. In that study they targeted backpackers using a combination of snowball and convenience sampling primarily centred on the University and the students that attended. Several previous backpacker studies have also employed multi-modal procedures. For example, Visser (2004) used several methods for collecting survey data for the study of the developmental impacts of backpacker tourism in South Africa including, telephone interviews, intercept interviews, and parts of a general visitor study for South Africa.

Within tourism research more generally, multimodal survey methods are becoming more popular, and studies have shown that they can help to alleviate systematic bias within a singular method. Dolnicar, Laesser, and Matus (2009) examined the effects of the online and paper formats on the quality of survey responses within a tourism context. Their study found that there was significant differences between the results from a paper based survey and an internet survey both in terms of demographics and actual responses to questions. They concluded that both mail-only and online-only surveys formats resulted in non-response bias, mostly due to self-selection by respondents to participate in the respective surveys. They further concluded that multi-method survey approaches are the most reliable way of collecting data and in order to increase the validity of the total responses they should be used more frequently in tourism research.

Table 1. Advantages and disadvantages of online and offline sampling modes.

Survey Administered	Advantages	Disadvantages
Destination-Based (ex. Hostel or Backpacker Enclave)	<ul style="list-style-type: none"> -Access to current travelers -Direct-Face to face contact with respondents -Data good for research based on geographical location 	<ul style="list-style-type: none"> -Only access to current travelers at that location -Unable to generalize results beyond location specific setting. -Sampling at multiple destinations (particularly internationally) can be costly and time consuming.
Open Online Community (ex.	-Access to a wider population.	-‘Openness’ makes it difficult

Lonely Planet's Thorn Tree Forum)	<ul style="list-style-type: none"> -Not restricted to current travelers or geographic location -Ease in posting a survey link to a community discussion boards. -Could bias towards 'active' forum participants. 	<ul style="list-style-type: none"> to be certain that the respondents are from population targeted. -Unable to calculate a response rate. -Posts might get buried deep in the online forums, so individuals that visit the forum infrequently might not have ability to respond to survey.
Closed Online Community (ex. Backpacker Facebook group)	<ul style="list-style-type: none"> -Ability to directly target a specific community of individuals. -Ability to send direct messages to individual members -Ability to calculate a response rate -Access to individuals not restricted by geographic location. 	<ul style="list-style-type: none"> -Potential for messages to be seen as spam. -Need to gain access to communities with permission to send messages. -Misses out on people not involved in that particular online community.
Mixed Mode	<ul style="list-style-type: none"> -Can maximize advantages and minimize disadvantages if 	<ul style="list-style-type: none"> -Not needed or appropriate in all cases.

	<p>complementary modes are used.</p> <p>-Access to a wider population of individuals overcoming inadequacy of coverage of individual modes</p> <p>-Good for accessing an international sample.</p>	<p>-Combining data from mixed-modes can be problematic if initial sampling is not optimal.</p>
--	--	--

It is important that when considering a sampling mode that both the advantages and disadvantages are weighed so that the optimal data collection method is employed.

Table 1 briefly summarizes some of the advantages and disadvantages for destination based, open online, closed online, and mixed mode sampling methods.

The optimal data collection method is one that provides the best method within the constraints of the research that addresses that research question (de Leeuw, 2005). Based on previous backpacker studies, this paper presents an application of a mixed-mode dual frame sampling procedure to survey backpackers. This procedure includes the administration of surveys through two modes:

- (1) self administered surveys through backpacker specific groups on Facebook.com, and
- (2) self-administered surveys at backpacker hostels in Cairns, Australia.

Within the constraints of time and funding, the decision was made that this was the optimal sampling approach as mixed-mode sampling can provide the opportunity to balance the limitations of each individual mode (de Leeuw, 2005). The sampling

procedure provided a means of targeting this difficult-to-sample population

Author's Pre-Proof Draft for personal use. All references should be made to the definitive version published in *Anatolia: An international Journal of Tourism and Hospitality Research*.
DOI:10.1080/13032917.2012.762319

(Lepkowski, 1991). Mixed-mode dual frame sampling approaches are typically used in international research when a unimode approach is not feasible or optimal (de Leeuw, 2005). Combining these two modes allowed for a diverse sample of backpackers that includes individuals from many different nationalities, individuals at home or travelling and not in a backpacker enclave, individuals that do not use Facebook or participate in online groups, older backpackers, and individuals travelling for an extended period of time. While the sampling coverage of all backpackers is nearly impossible because the global and mobile nature of backpacking, it is hoped that the conscious decisions made in the sampling procedure helps to reduce the coverage error of previous studies and allow for adequate inferences to be made about backpackers. The decision to use online surveys as one of the modes of data collection was made after careful consideration of the advantages and disadvantages of online surveys, both in general and in the particular case of this research.

Online surveys have been used since the mid 1990s, and the advantages and disadvantages are well documented. Online surveys are generally distributed through either email, a webpage based survey, or a combination of the two (Van Selm & Jankowski, 2006; Andrews, Nonnecke, & Preece, 2003). The current developments of Web 2.0 technologies have not received a lot of attention yet in the literature on online surveys, but should have a large impact on the development and complexity of online surveys. Wright (2005) outlined several key advantages for online surveys including: access to unique populations, access to individuals in distant locations, automated data collection, ability to collect data while working on other tasks, and comparatively lower costs than other surveying methods. Wright also discussed several disadvantages that exist, and strategies to reduce them. Self-selection bias and non-response error are

major limitations of online surveys (Sills & Song, 2002), as some individuals are more likely to participate in surveys than others (Wright, 2005). Additionally, many internet users are desensitized to survey requests online resulting in a propensity to ignore survey invitations. Self-selection bias is an issue in other survey methods as well, such as mail-based surveys.

The primary issue in the use of online surveys is sampling and the calculation of response rates, as it is often very difficult to accurately estimate the size of an online population. One way to reduce this is to use an email list to send an online survey link to. In this study online messages were sent to individuals that were members of Facebook backpacker groups, which are bounded online communities. Combining an online survey link with a message can preserve respondents' anonymity, which is lacking in regular email surveys (Tasci & Knutson, 2003). The anonymity of online survey respondents will be a growing concern when social media is used as many individuals 'real' identity increasingly converges with their 'virtual' identity.

Another obstacle for online surveys is inequality of accessibility to the internet, known as the digital divide, which has been seen as a major limiting factor in previous literature. However, the increased convergence of internet, communication devices, and tourism has really reduced this limitation. Traditional data collection methods such as mail and phone could become outdated, as data collection techniques are changing to keep up with the changing lives of research subjects (Tasci & Knutson, 2003). This point, arguably, is even truer for the study of backpackers. Backpackers' inherent mobility means that, in some cases, backpackers' only permanent/stationary addresses are their email addresses and/or social media profiles (Paris, 2012; Mascheroni, 2007). For example, in the current example discussed in this study, less than one percent of

respondents to the destination based survey in Cairns indicated that they do not log onto the internet at home. Additionally, only three percent of the respondents indicated that during their current or most recent trip they did not access the internet. It can be assumed that individuals that have the disposable income to go backpacking in another country have the means to access the internet. Those that do not, likely, do so by choice.



For this study, a survey was administered through ten backpacker-specific groups on Facebook.com. The purpose of the survey was to gain insight into the respondents' perception of backpacking culture (Paris, 2012). Because of the breadth of the study, the sampling procedure outlined in this paper was employed to gain as wide of sample as possible within the constraints highlighted in previous backpacker studies and the practical constraints of the researcher in regards to time and money.

Facebook was chosen because it is the largest social networking site in the world, and provides the virtual infrastructure that allows groups of people with a common interest to interact socially. Facebook Groups allow individuals to interact as a group through text, pictures, and video, providing a much more developed level of interaction than found through traditional text based online interactions, such as those that occur in most internet forums. Facebook Groups also allow for the researcher to calculate a response rate because messages are sent to all members of the group. The number of potential respondents is known, unlike conducting a survey through an online forum or website. To select the ten groups, first a search was conducted using the internal search engine on Facebook. Based on the search, the first twenty five backpacker groups that fit the criteria for the study were selected.

In order to gain access to the backpacker groups, the researcher made contact through Facebook with each of the twenty five group's administrators of which 15 responded. Ten of these administrators made the researcher an administrator of the group, allowing complete access. A similar strategy for gaining access to online communities was discussed by Wright (2005). While every effort was made to limit potential biases in the selection of the Facebook groups, some were unavoidable. First, the primary language of each group was English, although some groups' members interacted in a multitude of languages. Facebook is now available in many different languages. While a geographical bias cannot be completely ruled out, it does appear to be limited based upon the spread of nationalities represented in the sample of respondents and the fact that several of the groups used also were focused upon a specific region, including Asia, Australia, Europe, Central America, and Africa. On the surface these appear to be geared towards backpackers with an interest in travelling in those regions to interact, and that might have been the original case. During the examination for the acceptability of each group it was observed that many individuals from destinations in the regions were eagerly interacting and engaging with potential visitors. This interaction has potential for future studies on virtual host-guest interactions.

It was important to gain full administrator access to the groups in order to be able to send direct messages to all group members. A link to the 'backpacker survey' and a short message explaining the purpose was sent to all the members of ten backpacker-specific groups on Facebook.com. The message was tactful and offered to share results of the study with the community when they were available. The message also included an advanced apology for any inconvenience caused by the message or

survey. Two follow-up/reminder messages were sent after one week and two weeks. These messages thanked those who had completed the survey already and provided a friendly reminder for those who had not. A final message was also sent after 1 month to thank everyone for their participation. It was hoped that these steps would help to reduce the self-selection bias by creating a more personable relationship with potential respondents, however there is no way to calculate if self-selection bias was indeed reduced.

Random sampling is nearly impossible to do online, however sampling frames can be obtained through closed internet communities such as listservs, Usenet newsgroups, multi-user games (Kaye & Johnson, 1999), and in the case of this study Facebook Groups. Self-selection sampling design was used, with a predetermined sampling frame that included the members of the ten backpacker groups on Facebook.com. While the results of any analysis based on the data collected through the Facebook surveys, arguably, cannot be directly generalized to the whole population of backpackers, the results should provide strong indicators of the backpacker phenomenon, and were also complemented with destination-based surveys in order to expand the sampling frame and reduce converge error.

In Cairns, Australia, surveys were administered at 15 pre-selected backpacker hostels in June 2009. The specific locations to administer the survey were selected after considering past backpacker surveys administered in Cairns (Prideaux & Coghlan, 2006; Prideaux & Shiga, 2007). The demographic profile of backpackers surveyed by Prideaux and Coghlan (2006) included a majority that were women (60%), between the ages of 20-24 (59%, with 93% under 30), and the majority of respondents from the UK (47%) and Western Europe (29%). Similarly, while the focus of Prideaux and Shiga's

(2007) study was Japanese backpackers their study also included a nearly even split of male and female respondents and a large percentage of students.

Cairns, Australia was selected as a data collection location because the advanced level of development as a backpacking industry. Cairns is a gateway to both the wet tropics of North Queensland, to the Great Barrier Reef, the Australian Outback and a backpacker trail stretches from Melbourne and Sydney, up the Gold Coast to Northern Queensland. Cairns can also be considered a well developed backpacker enclave, as it has a dense collection of backpacker hostels in the downtown area providing access to a large number of potential respondents. Because of the transient nature of backpackers, conducting survey research outside of well developed backpacker enclaves can be difficult.

Using a purposive sampling method, respondents were approached in Cairns in common areas of each hostel. When respondents were approached, and asked if they could take a few minutes to complete the 'backpacker survey', thereby allowing them to object to being associated with backpacking. Local residents were not allowed to complete the survey. Collecting data at both backpacker destinations and in online communities reduces limitations that have been associated with both methods of data collection in the past.



The data collection resulted in a total of 519 surveys, of which 493 were usable. Out of the 275 surveys distributed in Cairns, Australia, 230 were completed for a response rate of about 83.6%. The online survey was distributed through a message via ten Facebook backpacker groups. The survey link was sent to a total of 1453

individuals, with careful examination of each Facebook group member list to be sure of no overlaps. Out of the 1453 individuals 283 completed the survey for a response rate of 19.5%. Response rates for email surveys are commonly under 20% (Witmer, Colman, & Katzman, 1999; Deutskens, Reyter, Wetzels, & Oosterveld, 2004; Sax, Gilmartin, & Bryant, 2003).

The between-mode differences in response rate could have several explanations. First, individuals surveyed in hostels were travelling. Many backpackers value leisure, relaxation, and often have a much more leisurely pace to their daily lives than they would back home (Paris, 2010b; Paris & Teye, 2010). Additionally, the survey was administered mid-morning, when many of the respondents were having breakfast. Many of the individuals who responded to the online survey were not currently travelling and were living their normal daily lives. Similar to the reasoning of Sax, Gilmartin, and Bryant (2003), the low response rate for the online survey could be due to the increasingly fast-paced culture and the growing time demands on each individual's attention in their daily lives. Another explanation for the lower response rate for the Facebook survey could be that some people just did not check their Facebook inbox during the data collection period. Little is known about how regularly individuals check their Facebook inboxes, so many individuals might not received the messages in time to respond to the survey. Another reason for low response rate could be that it is easier to refuse an online survey than other surveys administered by phone, mail or face-to-face as individuals don't have to deal with a psychological factor of social approval or guilt that they are wasting something that is valuable (stamped return envelope) (Mavis & Brocato, 1998).

While response rates are consistently lower for online surveys, several studies have found that the quality of responses can be better for online surveys than other modes. Schaefer & Dillman (1998) found that the responses to an email survey included more complete questionnaires, and lower item non-response than a paper version. Even answers to open-ended questions have been found to be longer (Bachman, Elfrink, & Vazzana, 1996), suggesting that the freedom for an individual to respond on their own time can contribute to the completeness of a questionnaire. Representativeness in survey research is more important than response rate (Cook, Heath, & Thompson, 2000). While, response rate is a usual measure of representativeness, even studies with a high response rate can have large amount of non-response bias (Sills & Song, 2002).

It is therefore important to try to understand any non-response bias that might be present in each mode, and the implications of that bias for this study. It is very difficult to measure non-response bias; however, demographic data can provide some insights into the differences in who responded to each survey. In this study, the biggest difference between each mode of administration was gender. Fifty-six percent of the respondents to the online survey were men, while fifty-six percent of the respondents to the hostel-based survey were women. Women have made up a larger percentage of the respondents in the majority of the recent studies on backpackers (Paris, 2008) indicating that either more women travel as backpackers, or that women are more likely to be open and complete paper based surveys in hostels. Sax, Gilmartin, and Bryant (2003) found that when given the choice, men were more likely to choose an online survey, and women were more likely to choose a paper based survey. Similar studies have found that men are more likely to respond to online surveys than women (Palmquist & Stueve, 1996; Kehoe & Pitkow, 1996; Smith & Leigh, 1997). Another difference in the two

groups was age; the average age of the online respondents was almost 27, which were over 3 years older than the average hostel respondent. Many older backpackers have constraints to travelling for extended periods of time as they once did, such as jobs and families, but many do still actively participate in the backpacking culture through online communities (Paris, 2010a). Additionally many older backpackers, are more affluent, and can afford to stay in more expensive accommodations, even though they still enjoy similar experiences as their younger counterparts (see discussion of flashpackers by Paris, 2012). The third large difference was the nationality of respondents. Respondents of the online survey represented 21 additional nationalities than the hostel based survey. The hostel based survey in Australia had large percentages of respondents from United Kingdom, Australia, Western Europe, and New Zealand. The online survey had a larger percentage of respondents from United States of America, Canada, Scandinavia, South East Asia, Africa, Latin America, and the Middle East. The difference in nationality between the two groups of respondents is likely due to the nature of each of the methods of administering the surveys. Cairns is a popular backpacker destination, however, the majority of the backpackers that travel to that area are from the UK, Australia, Western Europe and New Zealand. If the study was conducted in other geographic locations this would likely be different. For example, a backpacker study conducted in Central America would likely have a large number of North American respondents. The sample of respondents collected through Facebook represents the global reach of Facebook users.

The dramatic differences of the gender, age, and nationality of respondents to the two modes of administration point to potential non-response bias and coverage error in previous studies on backpackers that have focused administering surveys using a

single mode. Much of the literature on multi-mode approaches, non-response error, and online surveys would view these differences as limitations to the study. This would be particularly true if each of these samples in this study were meant to be representative and make inferences about the general population on their own. Additionally these differences would be major limitations, particularly in the analysis of the data if the study was focused on comparing the two samples. For this study, however, these demographic differences between the two survey modes should be viewed as strengths, since the data from the two modes could be complimentary.

E

By using a mix-mode survey approach, this study was able to expand the coverage to a wider of individuals that might have not been targeted through a singular approach. In this unique case, the dual frame mixed-mode approach has more advantages than limitations. The most important advantage was the ability to reach a wide range of backpackers. By targeting backpackers currently travelling, those that were not currently travelling but still taking part in the backpacker culture, and individuals from a larger range of nationalities and age groups the sample provided a better foundation for discussing the overall backpacker culture (as presented in Paris, 2012). This is an advantage over using solely a single destination based sample of backpackers to explore a more topic not necessarily related to the geographic location. While this study did employ a multi-modal survey procedure, it was limited to one online site and one destination. The use of more diverse destinations and other online communities could be useful, if done so with careful considerations.

Another contribution of this study is a detailed description of a sampling procedure used to target a single group of tourists through Facebook, a topic that will require increased scrutiny as it becomes a more ubiquitous tool for conducting tourism research. While this paper provides a single example of considerations that need to be carefully reflected upon by researchers that administer surveys through Facebook, future studies should consider similar considerations for the use of other social media platforms including Twitter, Foursquare, Instagram, YouTube, Tumblr, etc. These recent developments in social media provide a cheap, quick, and potentially powerful means of targeting respondents and administering surveys for tourism researchers. The allure of collecting a large number of respondents in short amount of time with minimal financial cost needs to be balanced with methodological and/or theoretical justification. One particular area for future consideration is how to leverage the 600million mobile Facebook users and the other mobile platforms to target backpackers and other tourists while on the move. Future studies should focus on developing the mobile method tools.

Based on the findings of this paper, a few important considerations for researchers conducting online surveys through Facebook have emerged. First, while Facebook is becoming more ubiquitous, not everyone is 'on Facebook.' As a result, the use of Facebook as a sampling tool must be closely aligned and justified within the scope of the purpose of the research and the research questions. Second, Facebook is about personal connection and communication. It is absolutely necessary to develop some sort of rapport with the community being sampled from. This means that administering surveys through Facebook requires more than just posting links to an online survey. Third, mixed-mode sampling methods that include multiple online modes can now also be considered. For international studies, while Facebook is the

largest social networking site in the world, in some individual countries it is not the largest. Another opportunity is for researchers to embrace the other potential for integrating various types of online media (videos, photos, sounds, etc) into their online surveys and other online research designs.

R

- Andrews, D., Nonnecke, B., & Preece, J., (2003). Electronic survey methodology: A case study in reaching hard to involve internet users. *International Journal of Human-Computer Interaction*, 16(2), 185-210.
- Bachman, D., Elfrink, J., & Vazzana, G. (1996). Tracking the progress of email versus snail-mail. *Marketing Research*. 8(2), 31-35.
- Cave, J., Thyne, M., & Ryan, C. (2008). Perceptions of backpacker accommodation facilities: A comparative study of Scotland and New Zealand. In K. Hannam & I. Ateljevic (Eds.), *Backpacker tourism: Concepts and profiles* (pp. 215-246). Clevedon: Channel View Publications.
- Cook, C., Heath, F., Thompson, R. (2000). A meta-analysis of response rates in web- or internet-based surveys. *Educational and Psychological Measurement*, 60(6), 821-836.

- de Leeuw, E. (2005). To mix or not to mix data collection modes in surveys. *Journal of Official Statistics*, 21(2), 233-255.
- Deutkens, E., Reyter, K., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: An experimental study. *Marketing Letters*, 15(1), 21-36.
- Dillman, D. (2007). *Mail and Internet Surveys: The tailored design method*. Hoboken, NJ: John Wiley & Sons, Inc.
- Dolnicar, S., Laesser, C., & Matus, K. (2009). Online versus paper: Format effects in tourism surveys. *Journal of Travel Research*, 47 (3), 295-316.
- Ian, L. & Musa, G. (2008). Uncovering the international backpackers to Malaysia. In K. Hannam & I. Ateljevic (Eds.), *Backpacker tourism: Concepts and profiles* (pp. 128-143). Clevedon: Channel View Publications.
- Kaye, B. K. & Johnson, T. J. (1999). Research methodology: Taming the cyber frontier. *Social Science Computer Review*, 17, 323-337.
- Kehoe, C., & Pitkow, J. (1996). Surveying the territory: GVU's five WWW user surveys. *The World Wide Web Journal*, 1, 77-84.
- Lepkowski, J. (1991). Sampling the difficult-to-sample. *Journal of Nutrition*, 121(3), 416-423.
- Mack, R., Blose, J., & Pan, B. (2008). Believe it or not: Credibility of blogs in tourism. *Journal of Vacation Marketing*, 14(2), 133-144.
- Mascheroni, G. (2007). Global nomads' network and mobile sociality: Exploring new media uses on the move. *Information, Communication, and Society*, 10(4), 527-546.
- Mavis, B. & Brocato, J. (1998). Postal surveys versus electronic mail surveys. *Evaluation & the health professions*, 21(3), 395-408.

- Murphy, L. (2000). Australia's image as a holiday destination- perceptions of backpacker visitors. *Journal of Travel and Tourism Marketing*, 8(3), 21-45.
- Newlands, K. (2004). Setting out on the road less travelled: A study of backpacker travel in New Zealand. In G. Richards, & J. Wilson (Eds.), *The global nomad: Backpacker travel in theory and practice* (pp. 217-236). Clevedon: Channel View Publications.
- Niggel, C. & Benson, A. (2008) Exploring the motivations of backpackers: The case of South Africa. In K. Hannam & I. Ateljevic (Eds.), *Backpacker tourism: concepts and profiles* (pp. 144-156). Clevedon: Channel View Publications.
- Ooi, N. & Laing, J. (2010). Backpacker tourism: Sustainable and purposeful? Investigating the overlap between backpacker tourism and volunteer tourism motivations. *Journal of Sustainable Tourism*, 18(2), 191-206.
- Palmquist, J. & Stueve, A. (1996). Stay plugged into new opportunities. *Marketing Research: A Magazine of Management and Applications*, 8, 13-15.
- Paris, C. (2008) *The Backpacker market: Targeting a mobile population through online communities*. Masters Thesis. Arizona State University
- Paris, C. (2010a). The virtualization of backpacker culture: Virtual moorings, sustained interactions, and enhanced mobilities. In K. Hannam & A. Diekmann (Eds.), *Beyond backpacker tourism: Mobilities and experiences* (40-63). Bristol: Channel View Publications.
- Paris, C. (2010b). Backpackers' values and activities: An SEM approach. *Annals of Leisure Research*. 13(1-2), 239-259.
- Paris, C. & Teye, V. (2010). Backpacker Motivations: A travel career approach. *Journal of Hospitality Marketing and Management*, 19, 244-259.

- Paris, C. (2012). Flashpackers: An emerging sub-culture? *Annals of Tourism Research*, 39(2), 1094-1115.
- Paris, C., Lee, W., & Seery, P. (2010). The role of social media in promoting special events: The acceptance of Facebook 'events'. In, U. Gretzel, W. Hopken and R. Law (eds.) *Information and Communication Technologies in Tourism 2010: Proceedings of the International Conference in Lugano, Switzerland*. February 2010, 531-541.
- Prideaux, B. & Coghlan, A. (2006). *Backpacking shopping in the tropics: An overview of the shopping behaviour of backpackers in Cairns*. Research Report 2. Cairns: James Cook University.
- Prideaux, B. & Shiga, H. (2007). Japanese backpacking: The emergences of a new market sector- A Queensland case study. *Tourism Review International*, 11, 45-56.
- Reichel, A., Fuchs, G., & Uriely, N. (2009). Israeli backpackers: The role of destination choice. *Annals of Tourism Research*, 36(2), 222-246.
- Richards, G., & Wilson, J. (2004). Drifting towards the global nomad. In G. Richards, & J. Wilson (Eds.), *The Global nomad: Backpacker travel in theory and practice* (pp. 3-13). Clevedon: Channel View Publications.
- Sax, L., Gilmartin, S., & Bryant, A. (2003). Assessing response rates and non-response bias in web and paper surveys. *Research in Higher Education*, 44(4), 409-432.
- Schaefer, D. & Dillman, D. (1998). Development of a standard email methodology. *Public Opinion Quarterly*, 62(3), 378-390.
- Sills, S. & Song, S. (2002). Innovations in survey research: An application of web-based surveys. *Social Science Computer Review*, 20(1), 22-30.

- Smith, M. & Leigh, B. (1997). Virtual subjects: Using the internet as an alternative source of subjects and research environment. *Behavior Research Methods, Instruments, and Computers*, 29, 496-505.
- Speed, C. & Harrison, T. (2004). Backpacking in Scotland: Formal public sector responses to an informal phenomenon. In G. Richards, & J. Wilson (Eds.), *The global nomad: Backpacker travel in theory and practice* (pp. 149-167). Clevedon: Channel View Publications.
- Speed, C. (2008). Are backpackers ethical tourists? In K. Hannam & I. Ateljevic (Eds.), *Backpacker tourism: Concepts and profiles* (pp. 54-81). Clevedon: Channel View Publications.
- Tasci, A. & Knutson, B. (2003). Online research modes: Waiting for leisure, hospitality, and tourism researchers. *Journal of Hospitality & Leisure Marketing*, 10(3/4), 57-83.
- Van Selm, M. & Jankowski, N. (2006). Conducting online surveys. *Quality & Quantity*, 40, 435-456.
- Visser, G. (2004). The developmental impacts of backpacker tourism in South Africa. *GeoJournal*, 60, 283-299.
- Wilson, J. & Richards, G. (2008). Suspending reality: An exploration of enclaves and the backpacker experience. *Current Issues in Tourism*, 11(2), 187-202.
- Witmer, D., Colman, R., & Katzman, S. (1999). From paper-and-pencil to screen-and-keyboard. In S. Jones (Ed.), *Doing internet research: Critical issues and methods for examining the net* (pp. 145-162). Thousand Oaks, CA: Sage.
- Wright, K. (2005). Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software

packages, and web survey services. *Journal of Computer-Mediated Communication*, 10(3), article 11. Retrieved from <http://jcmc.indiana.edu/vol10/issue3/wright.html>.

Zehrer, A. & Grabuller, A. (2012). Social media marketing in tourism education: Insights into the development and value of a social network site for a higher education institution in tourism. *Journal of Vacation Marketing*, 18(3), 221-228.